AMENDMENTS TO THE CLAIMS

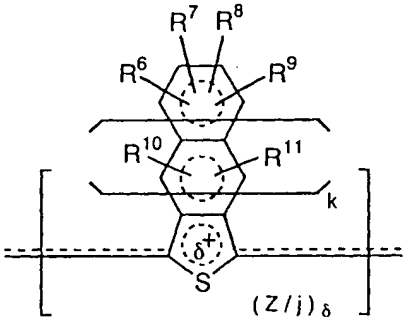
This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-7. (canceled).

Claim 8. (previously presented): A solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer provided on the dielectric film, wherein at least a portion of the solid electrolyte layer is of a lamellar structure,

in which the solid electrolyte layer comprises a composition containing a π-electron conjugate polymer and/or other electrically conducting polymer, in which the electrically conducting polymer is a condensed heteropolycyclic polymer comprising as a repeating unit a structural unit represented by general formula (III) below



(III)

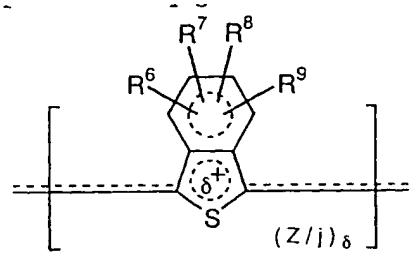
wherein the substituents R^6, R^7, R^8, R^9, R^{10} and R^{11} each independently represents a monovalent group selected from the group consisting of a hydrogen atom, a linear or branched, saturated or unsaturated C1-10 alkyl, alkoxy or alkyl ester group, a halogen atom, a nitro

group, a cyano group, a primary, secondary or tertiary amino group, a trihalomethyl group, a phenyl group and a substituted phenyl group, the alkyl chains of R^6, R^7, R^8, R^9, R^{10} and R^{11} may combine to each other at any position to form at least one divalent chain for forming at least one 3-, 4-, 5-, 6- or 7-membered saturated or unsaturated hydrocarbon cyclic structure together with the carbon atoms to which the substituents are bonded,

the alkyl group, the alkoxy group or the alkyl ester group of R^6, R^7, R^8, R^9, R^{10} or R^{11} or the cyclic hydrocarbon chain formed by the substituents may contain any number of any of carbonyl, ether, ester, amide, sulfide, sulfinyl, sulfonyl and imino bonds,

k represents a number of the condensed ring enclosed by the thiophene ring and the benzene ring having substituents R^6 to R^9 and represents an integer of from 0 to 3 excluding a form in which all of R^6 to R^9 represent a hydrogen atom from among derivatives in which k=0, and the condensed ring may optionally contain 1 to 2 nitrogen atoms or N-oxide, δ is in the range of 0 to 1, Z represents an anion, j is a valency of Z and is 1 or 2.

Claim 9. (currently amended): The solid electrolytic capacitor as claimed in claim 8, in which the condensed heteropolycyclic polymer represented by general formula (III) is a condensed heteropolycyclic polymer ~~comprising~~ represented by general formula (IV) below where k=0



(IV)

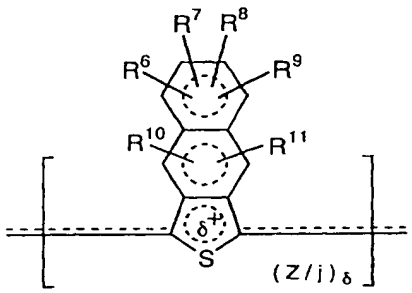
[[()]]wherein R^6, R^7, R^8, R^9, δ, Z and j are the same as in formula (III), and the condensed ring may optionally contain 1 to 2 nitrogen atoms ~~(N)~~ or N-oxide**[[)]]**.

Claim 10. (currently amended): ~~The~~A solid electrolytic capacitor ~~as claimed in claim 9,~~ comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer provided on the dielectric film, wherein at least a portion of the solid electrolyte layer is of a lamellar structure,

in which the solid electrolyte layer comprises a composition containing a π-electron conjugate polymer and/or other electrically conducting polymer,

in which the electrically conducting polymer ~~above~~ is a condensed heteropolycyclic polymer selected from 5,6-dioxymethyleneisothianaphthenylene polymer and 5,6-dimethoxyisothianaphthenylene polymer.

Claim 11. (currently amended): The solid electrolytic capacitor as claimed in claim 8, in which the condensed heteropolycyclic polymer represented by general formula (III) is a condensed heteropolycyclic polymer **[[**comprising**]]** represented by general formula (V) below where k=1

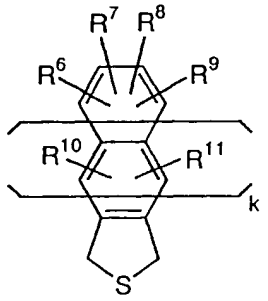


(V)

[[()]]wherein R^6, R^7, R^8, R^9, R^{10}, R^{11}, δ , Z and j are the same as in formula (III), and the condensed ring may optionally contain 1 to 2 nitrogen atoms ~~(N)~~ or N-oxide**[[)]]**.

Claims 12-28. (canceled).

Claim 29. (withdrawn): A method for producing a solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer provided on the dielectric film, wherein at least a portion of the solid electrolyte layer is of a lamellar structure, the method comprising polymerizing a condensed heteropolycyclic compound represented by the following formula (VI):



(VI)

wherein the substituents R^6, R^7, R^8, R^9, R^{10} and R^{11} each independently represents a monovalent group selected from the group consisting of a hydrogen atom, a linear or branched, saturated or unsaturated C1-10 alkyl, alkoxy or alkyl ester group, a halogen, a nitro group, a cyano group, a primary, secondary or tertiary amino group, a trihalomethyl group, a phenyl group and a substituted phenyl group, the alkyl chains of R^6, R^7, R^8, R^9, R^{10} and R^{11} may combine to each other at any position to form at least one divalent chain for forming at least

one 3-, 4-, 5-, 6- or 7-membered saturated or unsaturated hydrocarbon cyclic structure together with the carbon atoms to which the substituents are bonded,

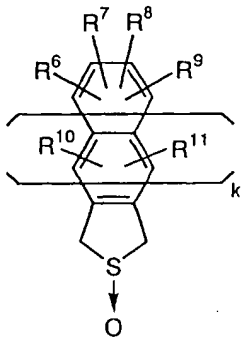
the alkyl group, the alkoxy group or the alkylester group of R^6, R^7, R^8, R^9, R^{10} or R^{11} or the cyclic hydrocarbon chain formed by the substituents may contain any of carbonyl, ether, ester, amide, sulfide, sulfinyl, sulfonyl and imino bonds,

k represents a number of the condensed ring enclosed by the thiophene ring and the benzene ring having substituents R^6 to R^9 and represents an integer of from 0 to 3, and the condensed ring may optionally contain nitrogen or N-oxide alone or together with another anion having a dopant ability, on the dielectric film formed on a porous valve acting metal surface by the action of an oxidizing agent to form a solid electrolyte layer on the dielectric film.

Claim 30. (withdrawn): The method for producing a solid electrolytic capacitor, as claimed in claim 29, in which as the condensed heteropolycyclic compound, there is used at least one member selected from dihydroisothianaphthene, dihydronaphtho[2,3c]thiophene and dihydrothieno[3,4-b]quinoxaline derivatives.

Claim 31. (withdrawn): The method for producing a solid electrolytic capacitor, as claimed in claim 29, in which at least one member selected from 1,3-dihydroisothianaphthene, 5,6-dioxymethylene-l,3-dihydroisothianaphthene, 5,6-dimethoxy-1,3-dihydroisothianaphthene, 1,3-dihydronaphtho[2,3-c]thiophene and 1,3-dihydrothieno[3,4-b]quinoxaline.

Claim 32. (withdrawn): A method for producing a solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer provided on the dielectric film, wherein at least a portion of the solid electrolyte layer is of a lamellar structure, the method comprising polymerizing a condensed heteropolycyclic compound represented by the following formula (VII):



(VII)

wherein the substituents R^6 , R^7, R^8, R^9, R^{10} and R^{11} each independently represents a monovalent group selected from the group consisting of a hydrogen atom, a linear or branched, saturated or unsaturated C1-10 alkyl, alkoxy or alkyl ester group, a halogen, a nitro group, a cyano group, a primary, secondary or tertiary amino group, a trihalomethyl group, a phenyl group and a substituted phenyl group, the alkyl chains of R^6, R^7, R^8, R^9, R^{10} and R^{11} may combine to each other at any position to form at least one divalent chain for forming at least one 3-, 4-, 5-, 6- or 7-membered saturated or unsaturated hydrocarbon cyclic structure together with the carbon atoms to which the substituents are bonded,

the alkyl group, the alkoxy group or the alkylester group of R^6, R^7, R^8, R^9, R^{10} or R^{11} or the cyclic hydrocarbon chain formed by the substituents may contain any of carbonyl, ether, ester, amide, sulfide, sulfinyl, sulfonyl and imino bonds,

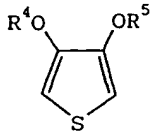
and k represents a number of a condensed ring enclosed by the thiophene ring and the benzene ring having substituents R^6 to R^9 and represents an integer of from 0 to 3, and the condensed ring may optionally contain nitrogen or N-oxide alone or together with another anion having a dopant ability, on the dielectric film formed on a porous valve acting metal surface by the action of an oxidizing agent to form a solid electrolyte layer on the dielectric film.

Claim 33. (withdrawn): The method for producing a solid electrolyte as claimed in claim 32, in which as the condensed heteropolycyclic compound, there is used at least one member selected from dihydroisothianaphthene-2-oxide, dihydronaphtho[2,3c]thiophene-2-oxide and dihydrothieno[3,4-b]quinoxaline-2-oxide derivatives.

Claim 34. (withdrawn): The method for producing a solid electrolytic capacitor, as claimed in claim 32 in which at least one member selected from 1,3-dihydroisothianaphthene-2-oxide, 5,6- dioxymethylene-1,3-dihydroisothianaphthene-2-oxide, 5,6-dimethoxy-1,3-dihydroisothianaphthene-2-oxide, 1,3-dihydronaphtho[2,3-c]thiophene-2-oxide and 1,3-dihydrothieno[3,4-b]quinoxaline-2-oxide.

Claim 35. (withdrawn): A method for producing a solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and an electrically conducting polythiophene composition as a solid electrolyte provided on the dielectric film, wherein at least a portion of the solid electrolyte layer is of a lamellar

structure, the method comprising polymerizing a thiophene monomer represented by the following formula (IX):



(IX)

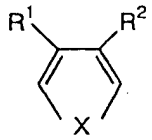
wherein R^4 and R^5 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 alkyl group or a substituent for forming at least one 5-, 6- or 7-membered heterocyclic structure containing two oxygen elements shown in the formula by combining the C1-6 alkyl groups to each other at any position, the ring structure formed in the scope thereof includes a chemical structure such as a vinylene group which may be substituted and a substituted phenylene group which maybe substituted, in the presence of naphthalenesulfonate anion by the action of a persulfate to form a solid electrolyte layer on the dielectric film.

Claim 36. (withdrawn): The method for producing a capacitor as claimed in claim 35, in which the persulfate is ammonium persulfate or potassium persulfate.

Claim 37. (withdrawn): The method for producing a capacitor as claimed in any one of claims 29 to 36, in which the polymerization by the action of an oxidizing agent within the metal oxide pores in the dielectric layer is repeated at least twice.

Claim 38. (withdrawn): A method for producing a capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid

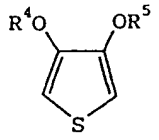
electrolyte layer comprising an electrically conducting polymer composition layer provided on the dielectric film, in which the composition contains sulfoquinone anion having at least one sulfo anion group and a quinone structure in the molecule in an amount of 0.1-50 mol % and an anion other than the sulfoquinone anion in the range of 0.1-10 mol %, in which the method comprises polymerizing a monomer compound represented by the following formula (VIII):



(Ⅷ)

wherein R^1 and R^2 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 alkyl, a linear or branched, saturated or unsaturated C1-6 alkoxy group, a hydroxyl group, a halogen atom, a nitro group, a cyano group, a trihalomethyl group, a phenyl group and a substituted phenyl group, R^1 and R^2 may be combined to each other at any position to form at least one divalent chain for forming at least one 5-, 6- or 7-membered saturated or unsaturated ring structure, X represents a hetero atom selected from S, O, Se, Te or NR^3, R^3 represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 hydrocarbon group, a phenyl group or a linear or branched, saturated or unsaturated C1-6 alkoxy group, the alkyl group and the alkoxy group represented by R^1, R^2 or R^3 may optionally contain in the chain thereof a carbonyl bond, an ether bond, an ester bond, an amide bond or an imino bond, in the presence of a compound which donates a sulfoquinone anion by the action of an oxidizing agent to form a solid electrolyte layer.

Claim 39. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 38, in which the monomer compound represented by general formula (VIII) above is a compound represented by the following general formula (IX):



(IX)

wherein R^4 and R^5 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 alkyl group or a substituent for forming at least one 5-, 6- or 7-membered heterocyclic structure containing the two oxygen elements shown in the formula by combining the C1-6 alkyl groups to each other at any position, the ring structure formed in the scope thereof includes a chemical structure such as a vinylene group which may be substituted and a substituted phenylene group which may be substituted.

Claim 40. (withdrawn): A method for producing a solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer comprising an electrically conducting polymer composition provided on the dielectric film, in which the composition contains sulfoquinone anion having at least one sulfo anion group and a quinone structure in the molecule in an amount of 0.1-50 mol % and an anion other than the sulfoquinone anion in the range of 0.1-10 mol %, the method comprising polymerizing a monomer by the action of an oxidizing agent to form a solid electrolyte layer on the dielectric film,

in which the method comprises the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound, and dipping in a solution containing an oxidizing agent and a sulfoquinone anion.

Claim 41. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 40, in which the valve acting metal having formed thereon the dielectric film layer is dipped in a solution containing a monomer compound and then in a solution containing an oxidizing agent and a sulfoquinone anion.

Claim 42. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 41, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and then dipping the metal in a solution containing an oxidizing agent and a sulfoquinone anion.

Claim 43. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 42, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and then dipping the metal in a solution containing an oxidizing agent and a sulfoquinone anion, followed by washing and drying.

Claim 44. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 40, in which the method comprises the step of dipping the valve acting metal having formed thereon the dielectric film in a solution containing an oxidizing agent and a sulfoquinone anion and then dipping the metal in a solution containing a monomer compound.

Claim 45. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 44, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film in a solution containing an oxidizing agent and a sulfoquinone anion and then dipping the metal in a solution containing a monomer compound.

Claim 46. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 45, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film in a solution containing an oxidizing agent and a sulfoquinone anion and then dipping the metal in a solution containing a monomer compound, followed by washing and drying.

Claim 47. (withdrawn): A method for producing a solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer comprising an electrically conducting polymer composition provided on the dielectric film, in which the composition contains sulfoquinone anion having at least one sulfo anion group and a quinone structure in the molecule in an amount of 0.1-50 mol

% and an anion other than the sulfoquinone anion in the range of 0.1-10 mol %, the method comprising polymerizing a monomer by the action of an oxidizing agent to form a solid electrolyte layer on the dielectric film,

in which the method comprises the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing an oxidizing agent and of dipping the metal in a solution containing a monomer compound and a sulfoquinone anion.

Claim 48. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 47, in which the valve acting metal having formed thereon the dielectric film layer is dipped in a solution containing an oxidizing agent and then in a solution containing a monomer compound and a sulfoquinone anion.

Claim 49. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 48, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing an oxidizing agent and then dipping the metal in a solution containing a monomer compound and a sulfoquinone anion.

Claim 50. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 49, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a

solution containing an oxidizing agent and then dipping the metal in a solution containing a monomer compound and a sulfoquinone anion, followed by washing and drying.

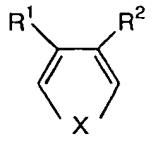
Claim 51. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 47, in which the valve acting metal having formed thereon the dielectric film layer is dipped in a solution containing a monomer compound and a sulfoquinone anion and then in a solution containing an oxidizing agent.

Claim 52. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 51, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and a sulfoquinone anion and then dipping the metal in a solution containing an oxidizing agent.

Claim 53. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 52, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and a sulfoquinone anion and then dipping the metal in a solution containing an oxidizing agent, followed by washing and drying.

Claim 54. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in any one of claims 38 to 53, in which the oxidizing agent is a persulfate.

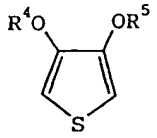
Claim 55. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in any one of claims 40 to 53, in which the oxidizing agent is a persulfate and the monomer compound is a compound represented by the following general formula (VIII)



(Ⅷ)

wherein R^1 and R^2 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 alkyl, a linear or branched, saturated or unsaturated C1-6 alkoxy group, a hydroxyl group, a halogen atom, a nitro group, a cyano group, a trihalomethyl group, a phenyl group and a substituted phenyl group, R^1 and R^2 may be combined to each other at any position to form at least one divalent chain for forming at least one 5-, 6- or 7-membered saturated or unsaturated ring structure, X represents a hetero atom selected from S, O, Se, Te or NR^3, R^3 represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 hydrocarbon group, a phenyl group or a linear or branched, saturated or unsaturated C1-6 alkoxy group, the alkyl group and the alkoxy group represented by R^1, R^2 or R^3 may optionally contain in the chain thereof a carbonyl bond, an ether bond, an ester bond, an amide bond or an imino bond.

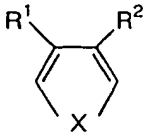
Claim 56. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 55, in which the monomer compound represented by the general formula (VIII) above is a compound represented by the following general formula (IX)



(IX)

wherein R^4 and R^5 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 alkyl group or a substituent for forming at least one 5-, 6- or 7-membered heterocyclic structure containing the two oxygen elements shown in the formula by combining the C1-6 alkyl groups to each other at any position, the ring structure formed in the scope thereof includes a chemical structure such as a vinylene group which may be substituted and a substituted phenylene group which may be substituted.

Claim 57. (withdrawn): A method for producing a capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer comprising an electrically conducting polymer composition layer provided on the dielectric film, in which the composition contains at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having a sulfonate group or derivatives thereof as a dopant, the method comprising polymerizing a monomer compound by the action of an oxidizing agent on the oxide dielectric film, in which the compound represented by the following formula (VIII):

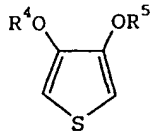


(Ⅷ)

wherein R^1 and R^2 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 alkyl, a linear or branched, saturated or unsaturated

C1-6 alkoxy group, a hydroxyl group, a halogen atom, a nitro group, a cyano group, a trihalomethyl group, a phenyl group and a substituted phenyl group, R^1 and R^2 may be combined to each other at any position to form at least one divalent chain for forming at least one 5-, 6- or 7-membered saturated or unsaturated ring structure, X represents a hetero atom selected from S, O, Se, Te or NR^3 , R^3 represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 hydrocarbon group, a phenyl group or an alkoxy group having a linear or branched, saturated or unsaturated C1-6 alkoxy group, the alkyl group and the alkoxy group represented by R^1, R^2 or R^3 may optionally contain in the chain thereof a carbonyl bond, an ether bond, an ester bond, an amide bond or an imino bond, is polymerized in the presence of a compound which donates at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid and derivatives thereof to form a solid electrolyte layer.

Claim 58. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 57, in which the monomer compound represented by general formula (VIII) above is a compound represented by the following general formula (IX):



(IX)

wherein R^4 and R^5 each independently represents a hydrogen atom, a linear or branched, saturated or unsaturated C1-6 alkyl group or a substituent for forming at least one 5-, 6- or 7-membered cyclic structure containing the two oxygen elements shown in the formula by combining the C1-6 alkyl groups to each other at any position, the ring structure formed in

the scope thereof includes a chemical structure such as a vinylene group which may be substituted and a substituted phenylene group which may be substituted.

Claim 59. (withdrawn): A method for producing a solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer comprising an electrically conducting polymer composition provided on the dielectric film, in which the composition contains at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having a sulfonate group or derivatives thereof as a dopant, the method comprising polymerizing a monomer by the action of an oxidizing agent to form a solid electrolyte layer on the dielectric film,

in which the method comprises the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound, and dipping in a solution containing an oxidizing agent and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof.

Claim 60. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 59, in which the valve acting metal having formed thereon the dielectric film layer is dipped in a solution containing a monomer compound and then in a solution containing an oxidizing agent and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having a sulfonate group and derivatives thereof.

Claim 61. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 60, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and then dipping the metal in a solution containing an oxidizing agent and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof.

Claim 62. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 61, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and then dipping the metal in a solution containing an oxidizing agent and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof, followed by washing and drying.

Claim 63. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 59, in which the method comprises the step of dipping the valve acting metal having formed thereon the dielectric film in a solution containing an oxidizing agent and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof and then dipping the metal in a solution containing a monomer compound.

Claim 64. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 63, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film in a solution containing an oxidizing agent and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof and then dipping the metal in a solution containing a monomer compound.

Claim 65. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 64, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film in a solution containing an oxidizing agent and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof and then dipping the metal in a solution containing a monomer compound, followed by washing and drying.

Claim 66. (withdrawn): A method for producing a solid electrolytic capacitor comprising a valve acting metal having pores, a dielectric film formed on a surface of the valve acting metal, and a solid electrolyte layer comprising an electrically conducting polymer composition provided on the dielectric film, in which the composition contains at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having a sulfonate group or derivatives thereof as a dopant, the method comprising polymerizing a monomer by the action of an oxidizing agent to form a solid electrolyte layer on the dielectric film,

in which the method comprises the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing an oxidizing agent and of dipping the metal in a solution containing a monomer compound and an anthracenemonosulfonate anion.

Claim 67. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 66, in which the valve acting metal having formed thereon the dielectric film layer is dipped in a solution containing an oxidizing agent and then in a solution containing a monomer compound and at least one anthracenemonosulfonate anion selected from anthracenesulfonic sulfonate group and derivatives thereof.

Claim 68. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 67, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing an oxidizing agent and then dipping the metal in a solution containing a monomer compound and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof.

Claim 69. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 68, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing an oxidizing agent and then dipping the metal in a solution containing a

monomer compound and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof, followed by washing and drying.

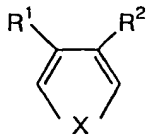
Claim 70. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 66, in which the valve acting metal having formed thereon the dielectric film layer is dipped in a solution containing a monomer compound and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof and then in a solution containing an oxidizing agent.

Claim 71. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 70, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof and then dipping the metal in a solution containing an oxidizing agent.

Claim 72. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 71, in which the method comprises the step of repeating in a plurality of times the steps of dipping the valve acting metal having formed thereon the dielectric film layer in a solution containing a monomer compound and at least one anthracenemonosulfonate anion selected from anthracenesulfonic acid having one sulfonate group and derivatives thereof and

then dipping the metal in a solution containing an oxidizing agent, followed by washing and drying.

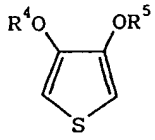
Claim 73. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in any one of claims 59 to 72, in which the monomer compound is a compound represented by the following general formula (VIII)



(VIII)

(wherein R^1, R^2 and X have the same meanings as defined in claim 27).

Claim 74. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in claim 73, in which the monomer compound represented by the following general formula (VIII) is a compound represented by the following general formula (IX)



(IX)

(wherein R^4 and R^5 have the same meanings as defined in claim 28).

Claim 75. (withdrawn): The method for producing a solid electrolytic capacitor as claimed in any one of claims 57 to 72, in which the oxidizing agent is a persulfate.